CAL Software Workshop

Sim/Recon
Status/plans

France

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Nov-01

Cal Sim/Recon : Status

• High Energy Corrections : 2 methods ; strong dependence on shower max position

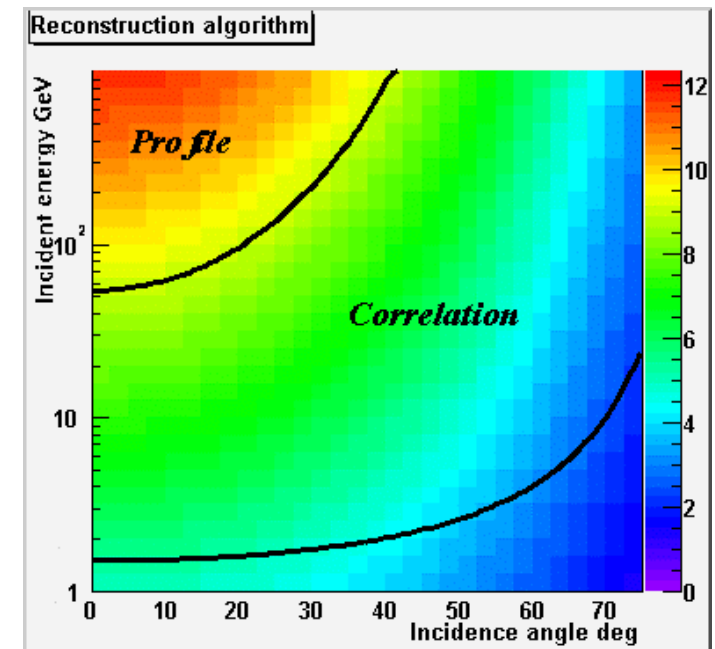At high energies on axis shower max is not contained :use profile fitting

At intermediate energies and/or large incidence angle: use last layer correlation

• Remark: Current correlation coefficients used in pdrApp were derived using old geometry

• Bias correction not added to code

• Intend to regenerate coefficients

• Coeff extraction code exists

• Await installation and running of pdrApp V7r1 on Linux machines @ Lyon (many, many problems)
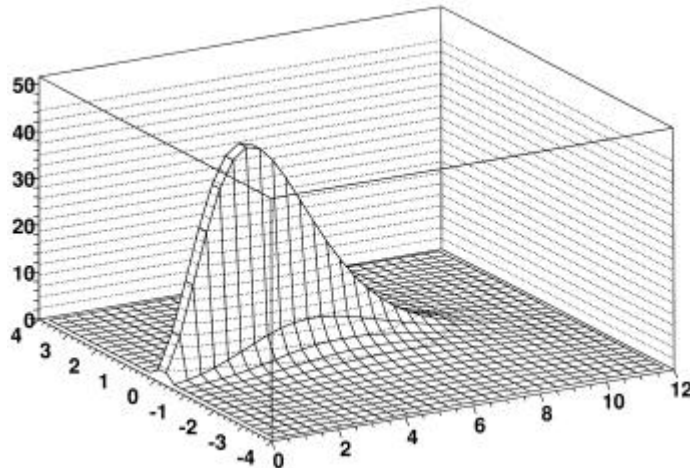
• Alternative: run jobs at SLAC?

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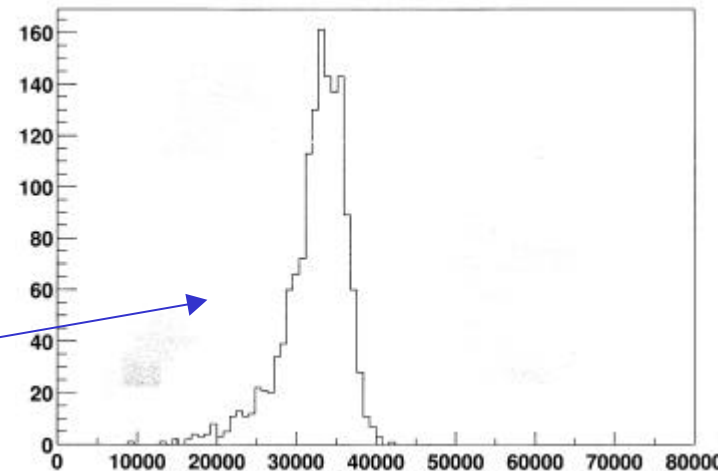Arache Djannati-Ataï

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• High Energy Corrections (continued): A 3rd method using 3dimensional description of the shower was tried ;

$$c^2 = \frac{\left(\iiint\limits_{Calorimètre} dE(\vec{r}) - E_{déposé} \right)^2}{E_{déposé}}$$

• Results : very slight improvement of the energy resolution as compared to longitudinal profile fitting at

• 30 Gev normal incident photons

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Cal Sim/Recon : Status/Plans

- Low energy Corrections :

  See Malcolm's presentation

  Next steps : try new methods : sampling calorimeter methods?

  Started few tries with Geant3; awaiting Geant4 with active volumes...

- Side/ Cracks Corrections

  New Tries - Not implemented ; Build Prototypes

- Discriminant Variables for Background Rejection

  Improve moments (smarter weights) exist

- Clusters : None

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